



ANDREWS RADIO SERVICE

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Before the
Federal Communications Commission
Washington, DC. 20544

FEB 12 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Replacement of Part 90
by Part 88 to Revise
the Private Land Mobile
Radio Services and Modify
the Policies Governing them.

PR Docket 92-235

To: The Commission

COMMENTS

Andrews Radio Service submits its comments in response to the Commission's notice of Proposed Rule Making in this proceeding, concerning:

1. Power restrictions on Fixed Stations at higher elevations.
2. Channel Splitting.
3. Frequency Stability
4. Consolidation of Private Land Mobile Radio Services

Complete comments are provided on the following pages.

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1. Power Restrictions: This proposal, which would require licensees to reduce power depending on height above the average terrain is a solution to a problem which may not exist and I strongly oppose.

In most cases, high elevation transmitter sites are surrounded by natural obstacles such as mountains. Environmental, economic and zoning concerns often prohibit use of the best transmitter sites. Consequently most all transmitters are located miles away from the desired coverage area. To compensate for these factors, a licensee must use sufficient power to cover the area needed. The other problem is that to assure wide area coverage and also the areas in between the high spots, such as where community or police repeaters are located, it is sometimes necessary to use more than the absolute minimum of power, especially where hand held units are in service. For instance where I live our county covers approximately 1000 square miles.

Air pollution and other exogenous factors can cause a significant loss of signal strength at a mobile receiver. Snow and ice on antennas in winter can degrade the performance of a system. Conditions around the receiver can change constantly especially in a mobile environment. Clearly radio systems must be designed to have sufficient reserve gain to enable the system to work under the worst conditions it is likely to encounter especially concerning portable or hand held radios and buildings or cars.

Under the Commission's proposal, specifying licensed output in terms of effective radiated power would impose a subjective theoretical standard on the real world where it may not work. Line loss, antenna gain, and directional distortions caused by the tower on which the antenna is mounted often will severely distort the realities of the equation.

At the present time, the mobile area of operation for many licensed stations is 75 miles around a base station or repeater. As this fact is recognized in existing licenses, the FCC should permit licensees to use adequate power to cover the area of operation specified in the license unaffected by the unreasonably low power limits described in the notice of proposed rule making.

In reference to the ability to establish satellite locations I feel that it is an unnecessary expense that many businesses could not afford. In my case I would need at least five more locations and the additional expense of tying these locations together would hurt me.



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2. Channel Splitting: the Commission's proposal to reduce spacing to 5 khz in VHF and 6.25 khz in UHF. is incompatible with mobile two way radio systems. Such channel spacing will work well for data but would not carry voice with enough force to enable the present generation of radio receivers to have good recovered audio. As most radio communications are in the voice mode at the present time I feel that until the manufactures of radios have working radios that are tested in the actual market this channel spacing will not work.

I would like to see a reduction of the present channel spacing to 10 khz for VHF and 12.5 khz for UHF. This would enable the present radios to still work. I would also like to see any changes postponed for aproximately five years. Then when you send a renewed license back to the user you could tell him that after a period of five years that he would have to upgrade the old radio system with new radios. This would enable the user of these old radios to plan on replacing them on a five year basis and also enable the manufacturers to get working radios on the market. Another suggestion would be to say that after five years from now all radios sold will be narrow band technology only. I believe that most users could upgrade their systems if they had five years to plan for it.

In my business I still see twenty year old radios in service and it will be very hard to get people to replace these old radios even now. The problem that I see is that in the present day economy there is no way that people can afford to replace an old radio that is working well. Most of the business that I have at present is repairing old radios with an occasional radio sale to add for an exhistng system.

3. Frequency Stabiltiy: The FCC's proposal, which would tighten frequency stability to one part per million on mobile units, serves no useful purpose. The difference in performance from the exhistng equipment in the VHF band will not be apparent. No presently available reasonable priced test equipment is available which could meet these new standards at this time, especially with regard to base stations which have to be .1 part per million. This proposal will make everyone have to replace their test equipment and I am not sure that any handheld could ever meet these standards over any temperature range.

4. Frequency Coordination: The Commission's proposal, to cut the number of frequency coordinators from 19 to three,



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would wreak havoc on the frequency coordination system. To
take this system which works well and turn it into a mess will